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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,086	11/01/2000	Venkatesh Vadde	NC17173	2571
26349	7590	05/25/2005	EXAMINER	
JUBIN DANA NOKIA INC. 6000 CONNECTION DRIVE MD 1-4-755 IRVING, TX 75039			TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/704,086

Applicant(s)

VADDE, VENKATESH

Examiner

YOUNG T. TSE

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☒ Claim(s) 1,3-7 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 3-7 and 11 are objected to because of the following informalities:

In claim 1, line 3, "a cyclic converter unit" should be "a cyclic convolver"; line 5, "a truncated signal" should be "a truncated partial response signal"; and lines 6 and 7, "the truncated signal" should be "the truncated partial response signal".

The dependent claims 3 and 4 are depended upon claim 1.

In claim 5, line 2, "are" should be "is".

In claim 6, lines 4, 5 and 7, "cyclic convoler" should be "cyclic convolver" and line 8, "are" should be "is".

The dependent claim 7 depends upon claim 6.

In claim 11, line 4, "cyclic convoler" should be "cyclic convolver"; lines 5-6, "suppressed to produce a truncated signal" should be "is suppressed to produce a partial response truncated signal"; lines 7 and 8, "the truncated signal" should be "the truncated partial response signal"; and line 8, "used" should be "is used".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Langlais (Newly cited).

Langlais (US Patent No. 6,091,932) discloses a system in Figure 9 for delivering information from a transmitter to a receiver.

With respect to claim 1, the transmitter comprises a QAM converter converts the information to a frequency domain signal and an IFFT modulator transforms the frequency domain signal to a time domain signal, modulates only the middle 544 of the 1024 tones, while the outside tones are set to zero amplitude values to ease signal filtering requirements, and minimizes image foldover distortion of the OFDM spectrum. See column 14, lines 56-59.

With respect to claims 9 and 10, the receiver comprises the well known devices, such as down converter, FFT demodulator and QAM un-converter for recovering a received truncated time domain signal from the transmitter to a received frequency domain signal.

***Allowable Subject Matter***

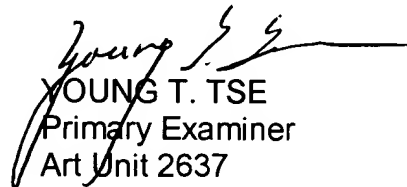
4. Claims 1, 3-7 and 11 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest a transmitter operable to generate a signal for communication upon a noisy channel comprising a cyclic convolver unit coupled to generate a partial response signal, a plurality of sub-symbols of the partial response signal is suppressed to produce a partial response truncated signal and a prefix unit to append a cyclic prefix for a leading edge of the partial response truncated signal in order to modulate a carrier signal of the signal for increasing bit-rate through effective bandwidth gain in a system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday and Wednesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2637